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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,973	12/04/2000	Nick N. Nguyen	ASP-7	3999

7590 06/16/2004
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EXAMINER

CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/728,973

Applicant(s)

NGUYEN ET AL.

Examiner

MONZER R CHORBAJI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12,14-16,19 and 20 is/are rejected.
- 7) ☒ Claim(s) 5,13,17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/10/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This non-final office action is in response to the amendment received on 03/19/2004

Remarks

1. The objection to the specification is withdrawn.
2. The 112-second paragraph rejection is withdrawn.
3. On page 6 of the Remarks section, applicant indicated that the form 1449 submitted with the IDS mailed on 05/17/2001 was not considered by the examiner. The case has no record of having this IDS entered. However, the IDS submitted with this amendment has been entered and considered as well.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that

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the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-4, 6-12, 14, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatanaka (EP 0321908) in view of Leibold (DE 2639301).

With respect to claims 1 and 9, Hatanaka teaches a method (col.3, lines 24-58) and an apparatus for vaporizing a sterilant (1) including the following: an inlet (20), an outlet (13), a circuitous path (9), creating temperature and pressure conditions to vaporize the sterilant (col.5, lines 28-35), admitting the sterilant to be vaporized (col.6, lines 44-47, 20, and 14), passing the sterilant through a circuitous path (col.5, lines 35-57 and 9), and passing the sterilant out of the vaporizer (13). With respect to claim 1 and 9, Hatanaka fails to teach the use of a flow restriction between the circuitous path and the outlet. In addition with regard to claim 9, Hatanaka fails to teach applying the vapor phase sterilant to a sterilization chamber. With respect to claims 1 and 9, Leibold teaches a flow restriction (7) between the circuitous path (2) and the outlet (6). Further, Leibold teaches applying the vapor phase sterilant to a sterilization chamber (page 5, lines 13-14). As a result, it would have been obvious to one having ordinary skill

in the art to modify the method and apparatus of Hatanaka to include a flow restriction between the circuitous path and the outlet in order to allow the apparatus to be used continuously instead of only intermittently, in a controlled manner without danger to the surrounding and personnel (Leibold, abstract, lines 13-15).

With respect to claims 2-3 and 6, Hatanaka teaches the following: a plurality of baffles (9), the circuitous path includes an inner tube (10) positioned concentrically within an outer tube (figure 2, space containing 9), the circuitous path includes a first portion (unlabeled arrows in the space containing 9) and a second portion (figure 2, unlabeled arrows in 10), and the circuitous path includes two turns each are at least 90 degrees (figure 2, unlabeled arrows in 14 and unlabeled arrows in space containing 9, and unlabeled arrows in 10).

With respect to claim 4, Hatanaka apparatus includes a portion (unlabeled space containing 9), which increases by at least 70% or more when compared with (10). Depending on the desired residence time within the apparatus, minimizing or maximizing such a region is well within the scope of the artisan since Hatanaka recognizes the importance of mixing the carrier gas with the disinfection gas is crucial to producing a gas with a uniform density (col.4, lines 6-16). Note that mixing the gases involves time and this time interval is equivalent to the residence time of the gases within the apparatus.

With respect to claims 7-8, the flow restriction (7) in the apparatus of Leibold is intrinsically capable of retaining the vapor within the vaporizer to any desired time interval depending on the chosen parameters for residence time and

for mixing time. On page 4, lines 1-9, Leibold teaches that if a throttle or a nozzle or a valve is installed after the circuitous path and before the gas outlet of the vaporizer, then the speed of the emission of the vapor can be controlled. This statement means that depending on the intended use, if less flow rate of the vapor is desired to be emitted, then the flow restrictor will retain the vapor longer within the apparatus and the opposite is true.

With respect to claims 10-12 and 14, such claims were addressed above regarding claims 2-4 and 6.

With respect to claims 19-20, such claims were addressed above regarding claims 7-8.

8. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatanaka (EP 0321908) in view of Leibold (DE 2639301) and further in view of feasey et al (U.S.P.N. 5,130,053).

With respect to claim 15, both Hatanaka and Leibold fail to explicitly teach adding stabilizing compounds to the liquid sterilants. However, feasey et al discloses adding stabilizing compounds to hydrogen peroxide (col.1, lines 5-8). Thus, it would have been obvious to one having ordinary skill in the art to modify the method of Hatanaka to include stabilizing compounds in order to decrease the rate of decomposition of the hydrogen peroxide by contacting it with such compounds (feasey et al, col.3, lines 36-40).

With respect to claim 16, Hatanaka discloses using liquid hydrogen peroxide (col.3, lines 18-19).

Allowable Subject Matter

9. Claims 5, 13, and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 8:30-5:00.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Monzer R. Chorbaji *MRC*
Patent Examiner
AU 1744
06/10/2004

Terrence R. Till
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Primary Examiner